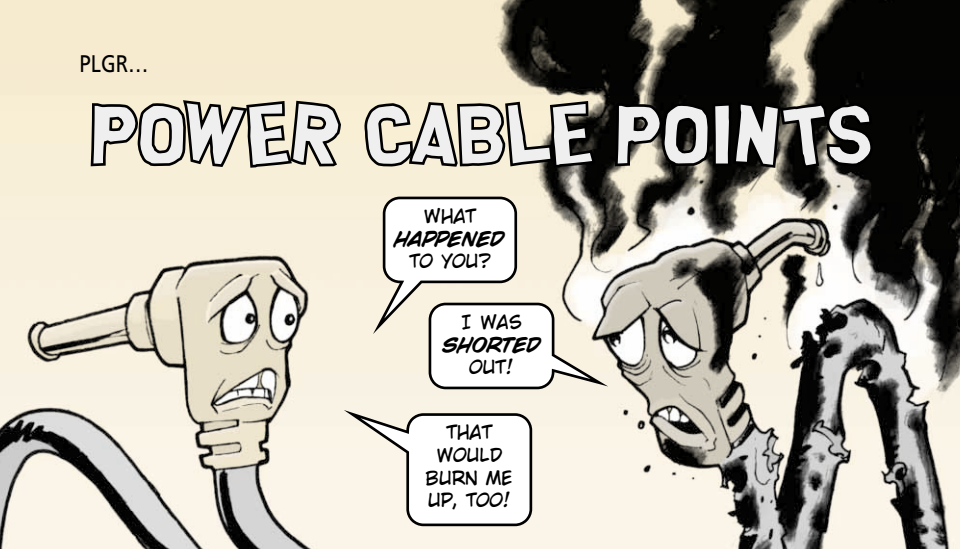
PLGR...

POWER CABLE POINTS

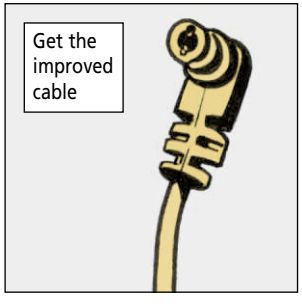


Using the external power cable NSN 6150-01-375-8661, is a great way to tap vehicle power and avoid the use of batteries to operate your AN/PSN-11 precision lightweight GPS receiver (PLGR). But you need to know a couple of things about this cable.

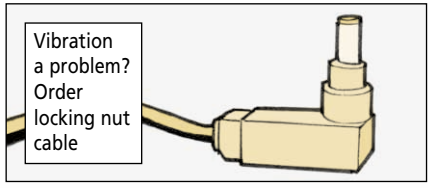
The power cable has an in-line fuse that is designed to blow when something shorts the power circuit. The fuse can only blow one time to protect your PLGR. You need to replace it right away but you also need to answer the question: "Why did the line short and the fuse blow in the first place?"

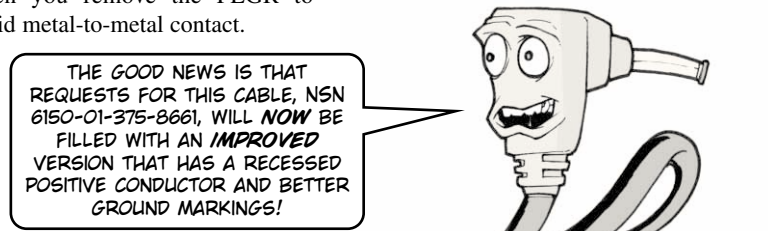
The electrical short usually results from metal-to-metal contact of the center conductor when the cable is loose, not attached to the PLGR or when a cable slips out of place due to heavy vibration. In ether case, metal-to-metal contact of the center conductor shorts the line and blows the fuse.

Start by checking out your external power cable. There have been some slight design variations since the PLGR external power cable was first introduced in 1993. Even though all the cables in field use have the same NSN, they are not exactly alike. On some cables the center conductor (the positive wire) is flush instead of being recessed like the original. This makes it easy for the center conductor to make metal-to-metal contact when not connected to the PLGR. Since the power cable is still "hot", when it makes metal-to-metal contact, the fuse will blow. Without corrective action, the short may eventually melt the power cable!



If you replace the power cable, carefully trace the markings to identify the positive line (with fuse) and the ground line. And if you get a flush connector tip, it's a good idea to put a flap of tape over the tip when you remove the PLGR to avoid metal-to-metal contact.

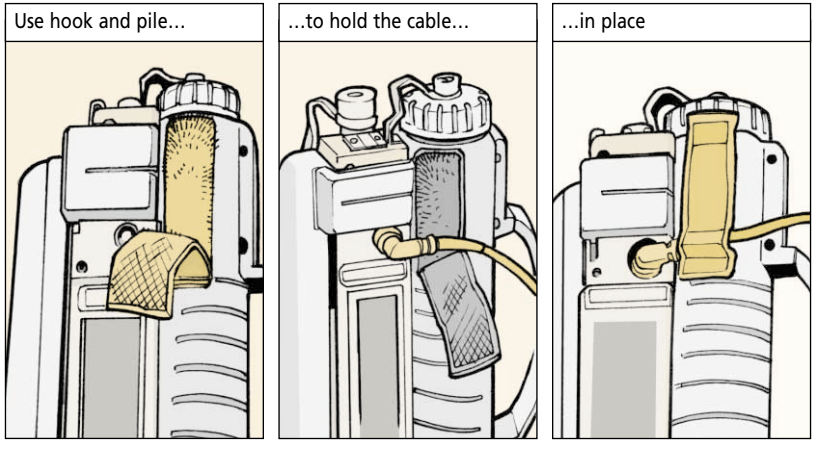




The vibration problem can be addressed by ordering a cable with a locking knurled nut, NSN 6150-01-469-6066 to make a positive connection that stays connected.

One complication with the knurled nut solution is that if you are also using the SINCGARS ground plate there isn't quite enough thread left for the nut to grip. In that case use some self-adhesive hook-and-pile tape to keep the plug in place.

Just run a strip of 1-in hook-and-pile tape, NSN 8315-01-445-8812, from the primary battery cap to the start of the handle right beside the J2/J3/J4 connector covers.



When you connect the power cable, fasten is down with the hook and pile. You can also try putting a piece of high-density foam or other non-metallic material between the PLGR mount and the back of the PLGR to firmly hold connectors in place.